



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Art Unit: 2818

Agarwal et al.

Application No. 09/590,795

Filed: June 8, 2000

For: METHODS FOR FORMING AND
INTEGRATED CIRCUIT STRUCTURES
CONTAINING RUTHENIUM AND TUNGSTEN
CONTAINING LAYERS

Examiner: David Vu

Date: January 6, 2003

BOX NON-FEE AMENDMENT
COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

CERTIFICATE OF MAILING

I hereby certify that this paper and the documents referred to as being attached or enclosed herewith are being deposited with the United States Postal Service on January 6, 2003 as First Class Mail in an envelope addressed to: BOX NON-FEE AMENDMENT COMMISSIONER FOR PATENTS, WASHINGTON, D.C. 20231.


Attorney for Applicant

RECEIVED
JAN 15 2003
TECHNOLOGY CENTER 2800

AMENDMENT

In response to the Office action dated October 4, 2002, please amend the subject application as follows:

In the specification:

Please replace the paragraph beginning on page 6, line 1, with the following new paragraph:

--If the layer 12 is formed via CVD, the deposition may be performed, for example, at pressures of 1-20 torr, desirably about 5 torr. The oxygen may be supplied in the form of O₂ or other oxidizing gas, such as N₂O, NO, or ozone (O₃). The oxygenating gas and a ruthenium precursor, and suitable diluent gasses, if desired, may be supplied at suitable flow rates, such as in the range of about 100-2000 sccm. Alternatively, the ruthenium precursor can be delivered by direct vaporization. Deposition may be performed for a time in the range of about 10 to 500 seconds, desirably for sufficient time and under sufficient conditions to deposit RuO_x or RuO₂ to a thickness in the range of about 100 to 600 Angstroms.--